

Al
P19993.A08

of the negative electrode plates protrude beyond the group of positive electrode plates on the opposite side; and---

Please replace the paragraph on page 6, lines 8-10, with the following:

Ay
---Fig. 7A is a front view, Fig. 7B is a top plan view, and Fig. 7C is an enlargement of VIIC in Fig. 7B, showing a negative electrode plate in the same embodiment;---

Please replace the paragraph on page 21, lines 19-21, with the following:

NB
---The present disclosure relates to subject matter contained in priority Japanese Patent Application No. HEI 11-267001.---

IN THE CLAIMS

Please cancel claims 1-11 without prejudice or disclaimer of the subject matter.

The following new claims are submitted for consideration by the Examiner:

MN 02
24. A battery comprising an electrode plate unit, the electrode plate unit including:

a group of electrode plates comprising a plurality of positive electrode plates and a plurality of negative electrode plates that are alternately stacked upon one another with intervening separators therebetween, wherein:

edges of said plurality of positive electrode plates protrude beyond edges of said plurality of negative electrode plates on one side of said group of electrode plates, and

edges of said plurality of negative electrode plates protrude beyond edges of said plurality of positive electrode plates on an opposite side of said group of electrode plates;

a positive electrode collector plate attached to said protruding edges of said plurality of positive electrode plates and having a positive electrode collector plate channel defined by raised edges protruding beyond a plane defined by said positive electrode collector plate, said raised edges of said positive electrode collector plate channel on a side of said positive electrode collector plate attached to said protruding edges of said plurality of positive electrode plates; and

a negative electrode collector plate attached to said protruding edges of said plurality of negative electrode plates and having a negative electrode collector plate channel defined by raised edges protruding beyond a plane defined by said negative electrode collector plate, said raised edges of said negative electrode collector plate channel on a side of said negative electrode collector plate attached to said protruding edges of said plurality of negative electrode plates.

25. The battery according to claim 24, wherein at least one of said positive electrode collector plate channel and said negative electrode collector plate channel

P19993.A08

extend at intervals on at least one of a respective positive electrode collector plate and said negative electrode collector plate, in a direction substantially parallel to the direction in which said positive electrode plates and said negative electrode plates are stacked.

26. The battery according to claim 24, wherein said positive electrode plates and said negative electrode plates are made of one of nickel sheet and nickel-plated steel sheet.

27. The battery according to claim 24, further comprising:

a solder material attached between said positive electrode collector plate and said protruding edges of said plurality of positive electrode plates, and attached between said negative electrode collector plate and said protruding edges of said plurality of negative electrode plates.

28. The battery according to claim 27, wherein:

said solder material is configured to be applied to said positive and negative electrode collector plates prior to being applied to said protruding edges of said plurality of positive and negative electrode plates; and

said solder material is configured to be reflowed after being applied to said protruding edges of said plurality of positive and negative electrode plates.

29. A battery comprising an electrode plate unit, the electrode plate unit including:
a plurality of positive electrode plates and a plurality of negative electrode plates that are alternately stacked upon one another with intervening separators therebetween; and

an electrode collector plate attached to protruding edges of at least one of said plurality of positive electrode plates and said plurality of negative electrode plates;

a plurality of bent portions, each bent portion of said plurality of bent portions respectively formed on an edge of said protruding edges, said plurality of bent portions bent at random angles.

30. A battery comprising an electrode plate unit, the electrode plate unit including:

a group of electrode plates comprising a plurality of positive electrode plates and a plurality of negative electrode plates that are alternately stacked upon one another with intervening separators therebetween, wherein:

edges of said plurality of positive electrode plates protrude beyond edges of said plurality of negative electrode plates on one side of said group of electrode plates, each said edge of said edges of said plurality of positive electrode plates having a slit therein; and

edges of said plurality of negative electrode plates protrude beyond edges of said plurality of positive electrode plates on an opposite side of said group of electrode plates, each said edge of said edges of said plurality of negative electrode plates having a slit therein;

a positive electrode collector plate attached to said protruding edges of said plurality of positive electrode plates and having a positive electrode collector plate channel defined

P19993.A08

by raised edges protruding beyond a plane defined by said positive electrode collector plate, said raised edges of said positive electrode collector plate channel on a side of said positive electrode collector plate attached to said protruding edges of said plurality of positive electrode plates; and

a negative electrode collector plate attached to said protruding edges of said plurality of negative electrode plates and having a negative electrode collector plate channel defined by raised edges protruding beyond a plane defined by said negative electrode collector plate, said raised edges of said negative electrode collector plate channel on a side of said negative electrode collector plate attached to said protruding edges of said plurality of negative electrode plates.

31. A battery comprising an electrode plate unit, the electrode plate unit including:
a plurality of positive electrode plates and a plurality of negative electrode plates that are alternately stacked upon one another with intervening separators therebetween, lead portions of each of said plurality of positive electrode plates and lead portions of each of said plurality of negative electrode plates extending along a respective edge thereof;
a collector plate attached to said lead portions of at least one of said plurality of positive electrode plates and said plurality of negative electrode plates; and

a plurality of bent portions, each bent portion of said plurality of bent portions respectively formed on a said edge of said plurality of positive electrode plates and said plurality of negative electrode plates, said plurality of bent portions bent at random angles,

wherein said lead portions comprise a locator configured to position said edges of at least one of said positive electrode plates and said negative electrode plates with respect to said collector plate.

32. The battery according to Claim 31, wherein said locator is one of a hole and a cut-out.

33. The battery according to Claim 31, wherein said lead portions of at least one of said plurality of positive electrode plates and said plurality of negative electrode plates comprise a reinforcing material.

34. The battery according to claim 24, further comprising a planar portion extending between adjacent channels of said plurality of channels.

35. The battery according to claim 30, further comprising a planar portion extending between adjacent channels of said plurality of channels.---

REMARKS

Initially, Applicants would like to express their appreciation to the Examiner for the detailed Official Action provided, for the acknowledgment of Applicants' claim for priority and the receipt of the certified copy of the priority document, and for the acknowledgment